

Applic. No. 09/922,464
Amdt. dated January 29, 2004
Reply to Office action of October 29, 2003

Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-10, 12-15, 17, and 28-30 are now in the application.

Claims 1, 23, and 28 have been amended.

In item 1 on page 2 of the above-identified Office action, the drawings have been objected to under 37 CFR 1.83(a).

More specifically, the Examiner has stated that the deposit control device, the ion exchanger, and the visual or acoustic indication must be shown or the features must be cancelled from the claims. Fig. 1 has been changed so as to facilitate prosecution of the application. Therefore, the objection to the drawings by the Examiner has been overcome. Furthermore, the specification has been amended to include the reference symbols that were added. No new matter has been added.

In item 3 on page 2 of the Office action, claims 1-3, 12-15, 17-20, 23-25, 29, and 30 have been rejected as being fully anticipated by Seiler et al. (U.S. Patent No. 5,804,817) (hereinafter "Seiler") under 35 U.S.C. § 102.

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Claims 1 and 23 have been amended to include the subject matter of claim 28. Since claim 28 was not rejected over Seiler, claims 1 and 23 are believed to be allowable over Seiler. Since claims 1 and 23 are believed to be allowable over Seiler, dependent claims 2-3, 12-15, 17-20, 24-25, 29, and 30 are believed to be allowable over Seiler as well.

In item 4 on page 4 of the Office action, claims 1, 8, and 9 have been rejected as being fully anticipated by Nelson (U.S. Patent No. 6,232,603) under 35 U.S.C. § 102.

Claim 1 has been amended to include the subject matter of claim 28. Since claim 28 was not rejected over Nelson, claim 1 is believed to be allowable over Nelson. Since claim 1 is believed to be allowable over Nelson, dependent claims 8 and 9 are believed to be allowable over Nelson as well.

In item 5 on page 5 of the Office action, claims 1, 7, and 10 have been rejected as being fully anticipated by Coulling et al. (U.S. Patent No. 6,084,519) (hereinafter "Coulling") under 35 U.S.C. § 102.

Claim 1 has been amended to include the subject matter of claim 28. Since claim 28 was not rejected over Coulling, claim 1 is believed to be allowable over Coulling. Since

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claim 1 is believed to be allowable over Coulling, dependent claims 7 and 10 are believed to be allowable over Coulling as well.

In item 7 on page 6 of the Office action, claims 1, 20-23, and 25-27 have been rejected as being obvious over Tanno (U.S. Patent No. 4,946,242) under 35 U.S.C. § 103.

Claims 1 and 23 have been amended to include the subject matter of claim 28. Since claim 28 was not rejected over Tanno claims 1 and 23 are believed to be allowable over Tanno. Since claims 1 and 23 are believed to be allowable over Tanno, dependent claims 20-22 and 25-27 are believed to be allowable over Tanno as well.

In item 8 on page 7 of the Office action, claims 4-6 have been rejected as being obvious over Seiler (U.S. Patent No. 5,804,817). Since claim 1 is believed to be allowable, dependent claims 4-6 are believed to be allowable as well.

In item 9 on page 8 of the Office action, claim 28 has been rejected as being obvious over Tanno (U.S. Patent No. 4,946,242) in view of applicants' admitted prior art (hereinafter "AAPA") under 35 U.S.C. § 103. Since claims 1 and 23 were amended to include the subject matter of claim 28,

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the rejection over Tanno in view of AAPA will be discussed below with regard to claims 1 and 23.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claims 1 and 23 call for, *inter alia*:

controlling the deposits at the surface with an ion exchanger in dependence on receipt of the signals generated by the at least one detector.

The Tanno reference discloses an optical part for light transmission, which can be used in motor vehicles, industrial machines, and washing machines. Figs. 7A and 7B of Tanno disclose applications of the optical part in a washing machine. One of the applications in the washing machine uses a prism (PR) with an LED and a photodiode (PD). This arrangement is used to detect a water level inside the washing machine. Tanno does not disclose anything regarding deposits

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on the surface of the prism (PR). The other application in the washing machine disclosed in Tanno, is in a drainpipe (42) of the washing machine, which is used to control the appropriate amount of rinse cycles needed. For this application, Tanno discloses using an LED disposed diametrically across the drainpipe (42) from a photodiode (PD). Consequently, as the water flowing between the optical parts becomes more contaminated the intensity of light transmitted to the photodiode is reduced. Tanno does not disclose any information regarding deposits on the LED or the photodiode (PD).

Tanno discloses the use of the LED and the photodiode in a suction port of a vacuum cleaner. Even in this type of grimy environment, Tanno provides no disclosure regarding deposits on the LED or the photodiode.

AAPA discloses a washing machine that has chemical sensors, which detect the lime content of the water to activate an ion exchanger in the event of excessively high lime content. AAPA does not disclose a body having a surface on which deposits occur. The chemical sensing of the lime content of the water achieves only the activation of the ion exchanger.

MPEP § 2143.01 (8th Edition, 1st Revision) states:

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THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION

...
Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." [Case citations].

It is respectfully believed that the Examiner is performing a piecemeal and hindsight re-construction. The rejection is based on a compilation of selected bits and pieces from several prior art references, in an unsuccessful attempt to arrive at the claimed invention. It is believed that such a compilation is without proper basis and is based solely on a hindsight reconstruction of the prior art after having read and become aware of applicants' claimed invention.

The current standard for combinability requires a showing of combinability which is "clear and particular". *Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340 (Fed. Cir., 2000), rehearing en banc denied (March 6, 2000), cert. denied, 120 S. Ct. 2679 (U.S. 2000). There is no "clear and particular" showing that it would be obvious to combine Tanno with AAPA

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since neither Tanno nor AAPA show or suggest using an ion exchanger to control deposits at the surface of a body. There is no showing that it would be "clear and particular" to combine Tanno with AAPA, considering the radically different nature and conceptional approach of the two references.

Hence, a person skilled in the art would not combine Tanno which discloses an optical part for light transmission with AAPA, which discloses an ion exchanger activated by chemical sensors that detect a lime content of the water in order to obtain the invention of the instant application, namely, a device for controlling deposits on surfaces, which uses at least one body having a surface and an ion exchanger.

Furthermore, a critical step in analyzing the patentability of claims pursuant to 35 U.S.C. § 103 is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614,1617 (Fed. Cir. 1999). Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher."

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Id. (quoting W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983)).

Most if not all inventions arise from a combination of old elements. See In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. See id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See id. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the appellant. See In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 163.5, 1637 (Fed. Cir. 1998); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. See WMS

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Gaming, Inc. v. International Game Tech., 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. See In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) (and cases cited therein). Whether the examiner relies on an express or an implicit showing, the examiner must provide particular findings related thereto. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. Broad conclusory statements standing alone are not "evidence." Id. When an examiner relies on general knowledge to negate patentability, that knowledge must be articulated and placed on the record. See In re Lee, 277 F.3d 1338, 1342-45, 61 USPQ2d 1430, 1433-35 (Fed. Cir. 2002).

Upon evaluation of the examiner's comments, it is respectfully believed that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the claims. Accordingly, the examiner is requested to withdraw the rejection.

Based on the above provided comments, it can be seen that the references do not show or suggest controlling the deposits at the surface with an ion exchanger in dependence on receipt of

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the signals generated by the at least one detector as recited in claims 1 and 23 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1 or 23. Claims 1 and 23 are, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claims 1 or 23, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-10, 12-15, and 17-30 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

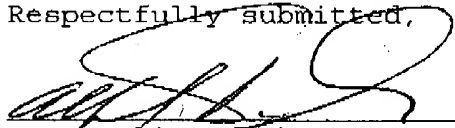
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Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner & Greenberg P.A., No. 12-1099.

Respectfully submitted,



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